

WHAT IS CLAIMED IS:

1. A solar cell having an electrode coated with lead-free solder, wherein phosphorus is included in said lead-free solder.
2. The solar cell according to claim 1, wherein an amount of phosphorus in said lead-free solder is 0.00001 to 0.5 mass %.
3. The solar cell according to claim 1, wherein said lead-free solder is Sn-Bi-Ag based solder.
4. The solar cell according to claim 1, wherein said electrode is a silver electrode formed by firing silver paste.
5. The solar cell according to claim 4, wherein an average grain size of powdery glass included in said silver paste is 11 μm at most.
6. The solar cell according to claim 4, wherein an amount of powdery glass included in said silver paste is 2.8 to 10.0 mass %.
7. The solar cell according to claim 4, wherein said silver paste has an average thickness of at least 15 μm .
8. A fabrication method of a solar cell comprising the steps of printing silver paste at a partial region at a light receiving side of an anti-reflection film and at a partial region at a back side of a p type silicon substrate, firing said silver paste to form a silver electrode, and coating said silver electrode with lead-free solder including phosphorus, wherein
5 powdery glass sifted through a sieve having an opening diameter of 73 μm at most is used as said powdery glass included in said silver paste.
9. A fabrication method of a solar cell comprising the steps of printing silver paste at a partial region at a light receiving side of an anti-

5 reflection film and at a partial region at a back side of a p type silicon substrate, firing said silver paste to form a silver electrode, and coating said silver electrode with lead-free solder including phosphorus, wherein the step of printing silver paste includes applying silver paste at least two times.

5 10. A fabrication method of a solar cell comprising the steps of printing silver paste at a partial region at a light receiving side of an anti-reflection film and at a partial region at a back side of a p type silicon substrate, firing said silver paste to form a silver paste electrode, and coating said silver paste electrode with lead-free solder including phosphorus, wherein the step of printing silver paste includes applying silver paste using a mask having a thickness of three times a wire diameter.

11. An interconnector for a solar cell, said interconnector coated with lead-free solder, said lead-free solder including phosphorous.

12. A solar cell string interconnecting a solar cell coated with lead-free solder with a solar cell interconnector coated with lead-free solder, wherein said lead-free solder applied as a coating on said solar cell and said interconnector includes phosphorous.

13. The solar cell string according to claim 12, wherein said lead-free solder applied as a coating on the solar cell and the solar cell interconnector has the same composition.

14. A solar cell module incorporated with a string interconnecting a solar cell coated with lead-free solder including phosphorous with a solar cell interconnector coated with lead-free solder including phosphorous.